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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,858	02/23/2004	Min-soo Kim	Q77192	5461
23373 7590 01/02/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER MERED, HABTE	
			ART UNIT 2616	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/782,858

Applicant(s)

KIM ET AL.

Examiner

Habte Mered

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 10/09/2007 has been entered and fully considered.
2. Claims 1-11 are pending. Claims 1 and 5 are the base independent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1, 3, and 4** are rejected under 35 U.S.C. 102(e) as being anticipated by Gloe (US Pub. No. 20040083306).

Gloe teaches a method and apparatus for maintaining Internet Domain.

2. Regarding **claim 1**, Gloe discloses a method of allocating an Internet Protocol (IP) address and detecting duplication of the IP address in a network environment (**See Figures 2, 6, and 7**), comprising the steps of: allocating an initial IP address to a terminal (**See Figure 6, element 603 and Figure 7, element 702, and Paragraphs 9 and 37. Note that the terminals are self configuring and generate IP address**); sending and receiving broadcast messages (**See Paragraph 31**); detecting duplication of the IP address while sending and receiving the broadcast messages (**Figure 7, step 704 and Paragraph 56 and Paragraph 169 and section 5.4**); updating a Duplicate Address Detection (DAD) table through searches of at least one of a DAD table and a

history table (**See Figure 4, and Paragraphs 41, 87, 92, and 114**); and determining whether a collision of the IP address occurs using a DAD timer handler (**See Paragraph 154**).

3. Regarding **claim 3**, Gloe discloses a method wherein the terminal allocates the initial IP address to itself. (**See Figure 6, element 603 and Figure 7, element 702, and Paragraphs 9 and 37. Note that the terminals are self-configuring and generate IP address**)

4. Regarding **claim 4**, Gloe discloses a method, wherein the broadcast messages are one-hop broadcast messages. (**See Paragraph 31 – by definition broadcast messages are one hop and in this case from the router to each host is considered one hop.**)

5. **Claims 5, 6, and 8-10** are rejected under 35 U.S.C. 102(e) as being anticipated by Koodli et al (US Pub. No. 2004/0081122), hereinafter referred to as Koodli.

Koodli teaches a method and system for fast IP connectivity in a mobile network.

6. Regarding **claim 5**, Koodli discloses a method of allocating an Internet Protocol (IP) address and detecting duplication of the IP address in a network environment (**See Figures 3 and 4**), comprising the steps: (a) initially allocating a tentative IP address to a terminal (**See Paragraph 32 – tentative IP in Koodli's system is referred to as unconfirmed IP address**) (b) determining whether the tentative IP address can be used by the terminal (**See Figure 3, steps 304, 306, and 308**); (c) comparing the tentative IP address with at least one other IP address (**Figure 3, step 316**); (d) if the tentative IP address has a duplicate, selecting an advisory IP

address that does not exist (**See Figure 3, step 316 – advisory IP address is referred to as normal address in Koodli's system**); (e) sending the advisory IP address to the terminal (**See paragraph 56**) (f) performing step (b) using the advisory IP address as the tentative IP address. (**See paragraphs 32 and 56 – if the terminal generates the advisory IP address then it goes through the DAD duplication check and if the router generates it the DAD check is not needed.**)

7. Regarding **claim 6**, Koodli discloses a method wherein the terminal allocates the tentative IP address to itself. (**See Paragraph 32 – tentative IP in Koodli's system is referred to as unconfirmed IP address.**)

8. Regarding **claim 8**, Koodli discloses a method wherein the network environment has no central server. (**See Figure 1 – no central server is shown or taught**)

9. Regarding **claim 9**, Koodli discloses a method, wherein at least one other IP address is located in a duplicate address detection (DAD) table. (**See Paragraph 50 and Figure 4 – steps 408, 410, 420, 422**)

10. Regarding **claim 10**, Koodli discloses a method, wherein the advisory IP address does not exist in the DAD table. (**See Paragraph 50 and Figure 4 – steps 408, 414, 416, 420, 424**)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Gloe in view of Uematsu (US Pub. No. 2002/0075836).

Uematsu teaches a method of checking address duplication in an ad-hoc environment.

12. Regarding **claim 2**, Gloe fails to disclose a method wherein the network environment is an ad-hoc network environment.

Uematsu discloses a method of checking duplicate address in an ad-hoc environment. **(See Paragraph 2, Figures 1,2, and 21)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gloe's duplicate address checking method to incorporate it in an ad-hoc environment. The motivation is to minimize IP address collision and consequently packet collision in the shared medium.

13. **Claims 7 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Koodli in view of Uematsu (US Pub. No. 2002/0075836).

14. Regarding **claim 7**, Koodli fails to disclose a method wherein the network environment is an ad-hoc network environment.

Uematsu discloses a method of checking duplicate address in an ad-hoc environment. **(See Paragraph 2, Figures 1,2, and 21)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Koodli's duplicate address checking method to incorporate it in an ad-hoc environment. The motivation is to minimize IP address collision and consequently packet collision in the shared medium.

15. Regarding **claim 11**, Koodli discloses a method, wherein a neighboring terminal selects the advisory IP address. **(See Figures 2 and 3 Paragraphs 46-48 the neighboring terminal being the new access router)**

Koodli fails to disclose the mobile node having functionality like detecting duplicate IP address and selecting advisory IP address. **(See Paragraph 2, Figures 1,2, and 21 – once detecting a duplicate IP address is established selecting an advisory IP address for the neighboring terminal is obvious as it is the norm in a network that is operated in a centralized manner)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Koodli's duplicate address checking method to incorporate selecting advisory IP address by neighboring terminal. The motivation is to minimize IP address collision and consequently packet collision in the shared medium.

Response to Arguments

1. Applicant's arguments filed 10/9/2007 have been fully considered but they are not persuasive.
2. In the Remarks, with respect to claim 1, Applicant argues that the limitation "determining whether a collision of the IP address occurs using a DAD timer handler" is not taught by Gloe in the cited teachings of Gloe. Applicant in the first paragraph on page 5 of the Remarks that simply argues the timer cited in Gloe is not used to determine whether a collision of the IP address occurred.

Examiner respectfully disagrees. Applicant also concedes in the first paragraph on page 5 of the Remarks that Gloe's timer is used to indicate delay between consecutive neighbor solicitations transmissions performed during duplicate address detection as stated in paragraph 154. If that is the case all the limitation is requiring some kind of timer to indicate a duplicate IP address has been detected. But the discussion regarding the delay is further elaborated in paragraph 182 in that it is introduced to alleviate different nodes starting up about the same time seeking same address and if the timer expired it is certainly an indication of an IP address collision resulting from two nodes seeking the same duplicate IP address.

3. In the Remarks, with respect to claim 5, Applicant argues that the limitation "(e) sending the advisory IP address to the terminal" is not taught by Koodli. In the second paragraph of page 6 of the Remarks, Applicant argues the teachings cited by the Examiner fails to show a normal or an advisory address being sent to the terminal.

Examiner respectfully disagrees. First of all the limitation "(e) sending the advisory IP address to the terminal" is preceded by limitation (d) that requires the advisory IP address only existing if the temporary IP address is a duplicate. This is also the case with Koodli's teachings as shown in Figure 3 block 316. The advisory IP address is selected as a new address in Figure 3, block 316 when the temporary IP address is determined to be a duplicate adequately meeting the limitation (d) of claim 5. Clearly Examiner cited Koodli's paragraph 56 to teach the alleged missing limitation "(e) sending the advisory IP address to the terminal". Koodli's paragraph 56 redirects the reader to Figure 3 blocks 310 to 312 in which clearly Koodli shows that the Link Frame

Type is set with the new IP address (i.e. Advisory IP address) and normal transmission proceeds using the new IP address as shown in Figure 3, block 314 and further confirmed in Koodli's paragraph 58.

4. In the Remarks, with respect to claim 6, Applicant argues that the terminal is required to allocate IP to itself without the assistance of a proxy router. Examiner respectfully disagrees that the mobile allocating IP to itself does not preclude the generation of an IP address by an external entity. Generating an IP address and allocating the IP address for use are two different processes.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H. To can be reached on 571 272 7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HM
12-24-2007

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Kwang Bin Yao', is written over the printed name and title.